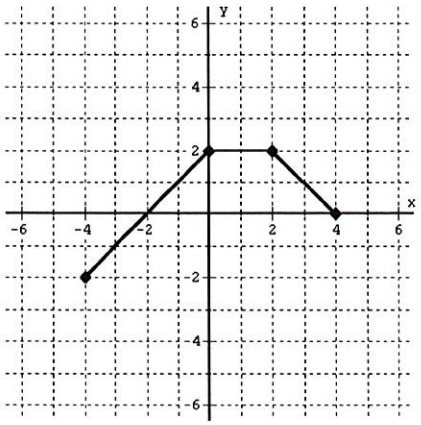
1.8 Practice

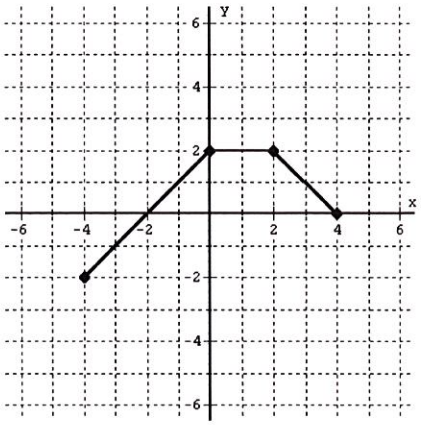
Name: _____

Graphing Transformations

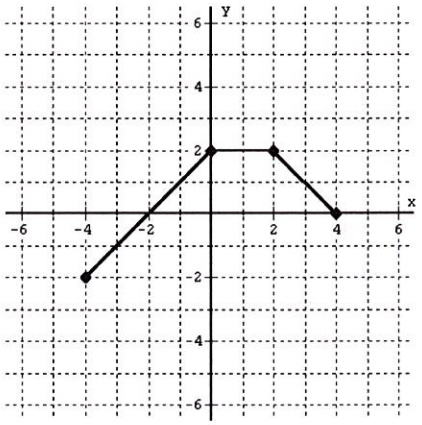
The graph of $y = f(x)$ is included on each grid below. Use its graph to graph the following functions:



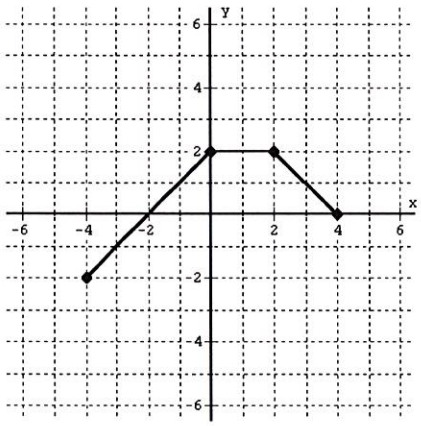
1) $F(x) = f(x) + 3$



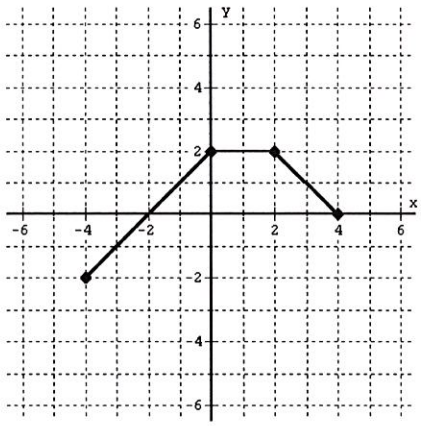
2) $G(x) = f(x + 2)$



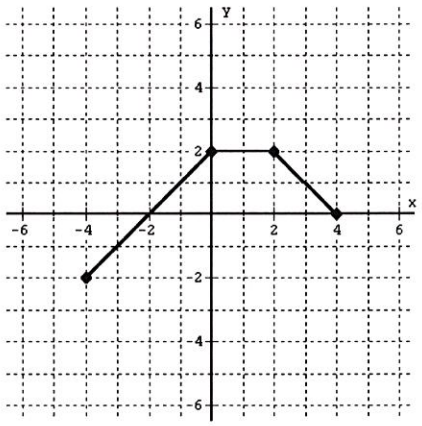
3) $P(x) = -f(x)$



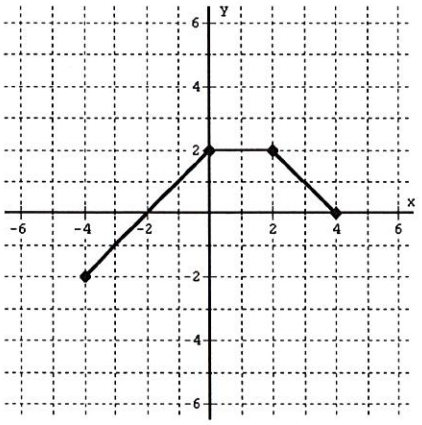
4) $G(x) = f(x - 1)$



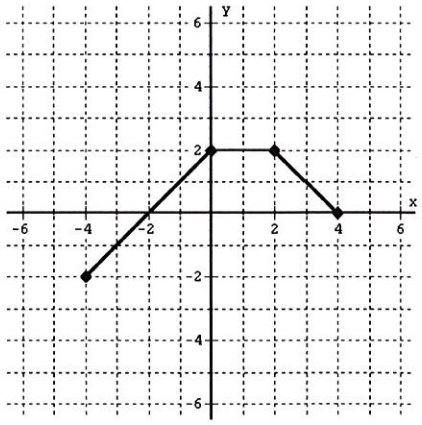
5) $H(x) = 2f(x)$



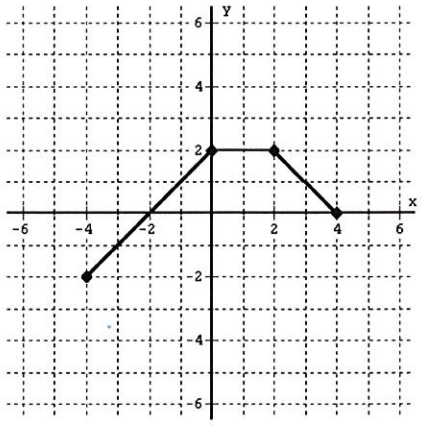
6) $F(x) = f(x) - 4$



7) $Q(x) = \frac{1}{2}f(x)$



8) $g(x) = f(-x)$



9) $h(x) = f(2x)$

Back →

SECTION 1.3 EXERCISES

In Exercises 1–12, each graph is a slight variation on the graph of one of the twelve basic functions described in this section. Match the graph to one of the twelve functions (a)–(l) and then support your answer by checking the graph on your calculator. (All graphs are shown in the window $[-4.7, 4.7]$ by $[-3.1, 3.1]$.)

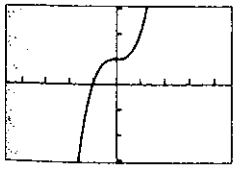
(a) $y = -\sin x$ (b) $y = \cos x + 1$ (c) $y = e^x - 2$

(d) $y = (x + 2)^3$ (e) $y = x^3 + 1$ (f) $y = (x - 1)^2$

(g) $y = |x| - 2$ (h) $y = -1/x$ (i) $y = -x$

(j) $y = -\sqrt{x}$ (k) $y = \text{int}(x + 1)$ (l) $y = 2 - 4/(1+e^{-x})$

1.



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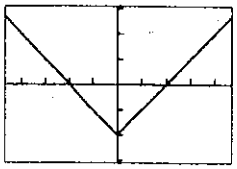

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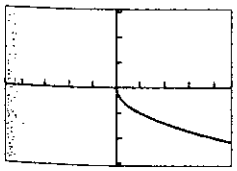

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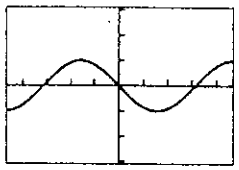

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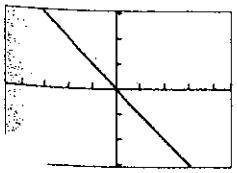

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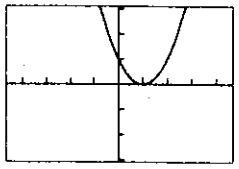

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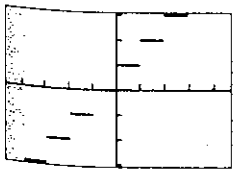

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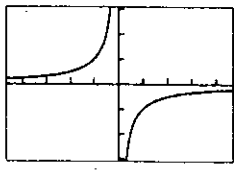

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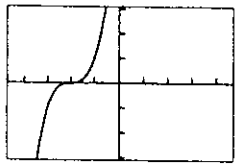

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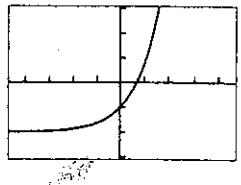

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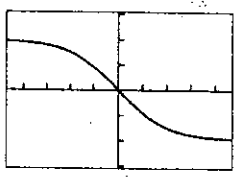

12.